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Title of the talk: **"Fantastic penguins and where to find them"**

In the era of high-precision particle physics, researchers can probe the Standard Model of Particle Physics (SM) with increasing accuracy. However, certain phenomena can currently not be explained by the SM. Therefore, particle physicists search for the unknowns in several different ways. Indirect searches with suppressed $b \rightarrow sll$ quark level transitions, called penguins, are one powerful tool to do so. Measurements of these transitions are not only sensitive to slightest deviations from SM predictions, but they can also be interpreted with effective field theories. This presentation will give an overview of recent measurements of penguin transitions at the LHCb experiment.